# PATENT COOPERATION TREATY

From the:
INTERNATIONAL SEARCHING AUTHORITY

| To:<br><br>Smoorenburg<br>Patent & Trade Mark Attorneys<br>PO Box 9<br>KANGAROO GROUND VIC 3097 | # PCT<br><br>WRITTEN OPINION OF THE<br>INTERNATIONAL SEARCHING AUTHORITY<br><br>(PCT Rule 43*bis*.1) |
|---|---|

| | Date of mailing<br>*(day/month/year)* | **22 DEC 2004** |
|---|---|---|

| Applicant's or agent's file reference | FOR FURTHER ACTION |
|---|---|
| 0PPC00590 | See paragraph 2 below |

| International application No.<br>**PCT/AU2004/001254** | International filing date *(day/month/year)*<br>16 September 2004 | Priority date *(day/month/year)*<br>14 October 2003 |
|---|---|---|

| International Patent Classification (IPC) or both national classification and IPC |
|---|
| Int. CL [7]    G06F 9/445, G06F 15/16 |

| Applicant |
|---|
|    LIVE MEDIA PTY LTD  et al |

---

1. This opinion contains indications relating to the following items:

   [X]  Box No. I      Basis of the opinion

   [ ]  Box No. II     Priority

   [X]  Box No. III    Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

   [X]  Box No. IV     Lack of unity of invention

   [X]  Box No. V      Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability;
                      citations and explanations supporting such statement

   [ ]  Box No. VI     Certain documents cited

   [ ]  Box No. VII    Certain defects in the international application

   [ ]  Box No. VIII   Certain observations on the international application

2. **FURTHER ACTION**

   If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1*bis*(b) that written opinions of this International Searching Authority will not be so considered.

   If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

   For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

---

| Name and mailing address of the IPEA/AU<br>AUSTRALIAN PATENT OFFICE<br>PO BOX 200, WODEN ACT 2606, AUSTRALIA<br>E-mail address: pct@ipaustralia.gov.au<br>Facsimile No. (02) 6285 3929 | Authorized Officer<br><br>**MICHAEL HARDY**<br>Telephone No. (02) 6283 2547 |
|---|---|

IAP9 Rec'd PCT/PTO 1 3 APR 2006

**WRITTEN OPINION OF THE**
**INTERNATIONAL SEARCHING AUTHORITY**

International application No.

**PCT/AU2004/001254**

| Box No. I | Basis of the opinion |
|---|---|

1.  With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

   ☐ This opinion has been established on the basis of a translation from the original language into
   the following language                    ., which is the language of a translation furnished for the purposes of
   international search (under Rules 12.3 and 23.1(b)).

2.  With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

   a. type of material

      ☐ a sequence listing
      ☐ table(s) related to the sequence listing

   b. format of material

      ☐ in written format
      ☐ in computer readable form

   c. time of filing/furnishing

      ☐ contained in the international application as filed.
      ☐ filed together with the international application in computer readable form.
      ☐ furnished subsequently to this Authority for the purposes of search.

3.  ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4.  Additional comments:

<table>
<tr><td>WRITTEN OPINION OF THE<br>INTERNATIONAL SEARCHING AUTHORITY</td><td>International application No.</td></tr>
<tr><td></td><td>PCT/AU2004/001254</td></tr>
</table>

| | |
|---|---|
| **Box No. III** | **Non-establishment of opinion with regard to novelty, inventive step and industrial applicability** |

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of:

☐ the entire international application

☒ claims Nos: **11-45, 49, 50, 52-55.**

because:

☐ the said international application, or the said claim Nos.

relate to the following subject matter which does not require an international preliminary examination *(specify)*:

☐ the description, claims or drawings *(indicate particular elements below)* or said claims Nos.
are so unclear that no meaningful opinion could be formed *(specify)*:

☐ the claims, or said claims Nos.
are so inadequately supported by the description that no meaningful opinion could be formed.

☒ no international search report has been established for said claims Nos. **11-45, 49, 50, 52-55.**

☐ the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that:

the written form        ☐ has not been furnished

                        ☐ does not comply with the standard

the computer readable form  ☐ has not been furnished

                        ☐ does not comply with the standard

☐ the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-*bis* of the Administrative Instructions.

☐ See Supplemental Box for further details.

Form PCT/ISA/237 (Box No. III) (January 2004)

| WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY | International application No. |
|---|---|
| | **PCT/AU2004/001254** |

| **Box No. IV** | **Lack of unity of invention** |
|---|---|

1. [X] In response to the invitation (Form PCT/ISA/206) to pay additional fees the applicant has:

   [ ] paid additional fees

   [ ] paid additional fees under protest

   [X] not paid additional fees

2. [ ] This Authority found that the requirement of unity of invention is not complied with and chose not to invite the applicant to pay additional fees.

3. This Authority considers that the requirement of unity of invention in accordance with Rule 13.1, 13.2 and 13.3 is

   [ ] complied with

   [X] not complied with for the following reasons:

Lack of unity of invention; overview of the inventions claimed:

Group (1): Claims 1 to 10 and 46 relate to a network, method and architecture for communicating instructions between at least two devices wherein selection means is provided for selecting an encoding protocol for the instructions from a set of available encoding protocols.

Group (2): Claims 11 to 14 relate to a virtual computer having an object stack or heap and an instruction set.

Group (3): Claims 15 to 18, 49 and 52 relate to a method, apparatus and computer program product for executing an instruction set using a virtual computer wherein the virtual computer is serialised to a data buffer in a first device and then transmitted to a second device.

Group (4): Claims 19 to 45, 47, 50 and 53 relate to a communications format, method, architecture, apparatus and computer program product for providing communications between two devices wherein the format has a first portion representing data and a second portion representing metadata.

*Claims 48 and 51 also relate to the invention of Group (1) in so far as they are appended to claims 8 to 10 and relate to the invention of Group (4) in so far as they are appended to claims 32 to 44. A comprehensive search of claims 48 and 51 would necessarily require two separate searches, a search for the invention of Group (1) and a search for the invention of Group (4).

Although all these inventions are applicable to the general field of networked computer systems there is no special technical feature common to all four sets of claims as required by Rule 13.2

4. Consequently, this opinion has been established in respect of the following parts of the international application:

   [ ] all parts

   [X] the parts relating to claims Nos. 1 to 10 and 46, *and claims 48 and 51 in so far as they are appended to claims 8 to 10 only

Form PCT/ISA/237 (Box No. IV) (January 2004)

<table>
<tr><td colspan="2">WRITTEN OPINION OF THE<br>INTERNATIONAL SEARCHING AUTHORITY</td><td>International application No.<br><br>PCT/AU2004/001254</td></tr>
</table>

| Box No. V | Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
|---|---|

1.  Statement

| | | | |
|---|---|---|---|
| Novelty (N) | Claims | | YES |
| | Claims | 1-10, 46, 48, 51 | NO |
| Inventive step (IS) | Claims | | YES |
| | Claims | 1-10, 46, 48, 51 | NO |
| Industrial applicability (IA) | Claims | 1-10, 46, 48, 51 | YES |
| | Claims | | NO |

2.  Citations and explanations:
    - D1:  US-2003/0140180-A1 (BROWN et al.) 24 July 2003
    - D2:  EP-0766172-B1 (SUN MICROSYSTEMS, INC.) 2 April 1997
    - D3:  US-6578193-B1 (ADAMS) 10 June 2003
    - D4:  US-2003/0009539-A1 (HATTORI) 9 January 2003
    - D5:  US-6421733-B1 (TSO et al.) 16 July 2002
    - D6:  WO-1998/006034-A1 (GENERAL MAGIC, INC.) 12 February 1998

D1 discloses a multi-protocol object distribution system. The system uses a meta-stub configured to select individual RPC transport protocol stubs from a plurality of available RPC transport protocol stubs. This system permits all objects, including instructions, to be encoded and transmitted according to a selected communication protocol. Claims 8 to 10, 48 and 51 are thereby disclosed.

D2 discloses a method of using generic stubs to selectively control the marshalling order of data bytes in an object to be transmitted on a distributed computer network. As described at column 10 line 1 to column 15 line 22 the method enables selective encoding of instructions by determining whether to encode an instruction in big-endian order little-endian order prior to transmitting the object from one computer to another. As such D2 discloses claims 1 to 7 and 46.

D3 discloses a loader for virtual machine instructions that determines the endian order of instructions at load time thereby obviating the need to perform endian correction on the instructions at run time. D3 does not teach or suggest selectively encoding instructions for communication from a front interface on one computer to a back interface on another computer. D3 is cited as background art only.

D4 discloses a method and system for performing method calls between objects in a distributed computer system having a plurality of communication protocols. The method and system involves the use of relay computers interposed between a client and a server. The relay computer has skeleton objects corresponding to stub objects of the client computer, and stub objects corresponding to skeleton objects of the server. The relay computer permits the client and the server objects to perform method calls via different communication protocols. D4 does not teach or suggest selectively encoding instructions for communication from a front interface on one computer to a back interface on another computer. D4 is cited as background art only.

D5 teaches a method of selectively 'transcoding' data transmitted from one computer to another. 'Transcoding' involves modifying the data of an object according to predetermined selection criteria (see examples listed at column 7 line 15 to column 8 line 9). D5 does not teach or suggest selectively encoding instructions for communication from a front interface on one computer to a back interface on another computer. D5 is cited as background art only.

Continued...